ABSTRACT

There is disclosed a speech processing device in which prediction taps for finding prediction values of the speech of high sound quality are extracted from the synthesized sound obtained on affording linear prediction coefficients and residual signals, generated from a preset code, to a speech synthesis filter, speech of high sound quality being higher in sound quality than the synthesized sound, and in which the prediction taps are used along with preset tap coefficients to perform preset predictive calculations to find the prediction values of the speech of high sound quality. The speech of high sound quality is higher in sound quality than the synthesized sound. The device includes a prediction tap extracting unit (45) for extracting, from the synthesized sound, the prediction taps used for predicting the speech of high sound quality, as target speech, the prediction values of which are to be found, and a class tap extraction unit (46) for extracting class taps, used for classifying the target speech to one of a plurality of classes, from the above code. The device also includes a classification unit (47) for finding the class of the target speech based on the class taps, acquisition unit for acquiring the tap coefficients associated with the class of the target speech from among the tap coefficients as found on learning from class to class, and a prediction unit (49) for finding the prediction values of the target speech using the prediction taps and the tap coefficients associated with the class of the target speech.